

**BIOL 2301-2A1, 2B1, 2C1**  
**Anatomy & Physiology I Lecture**  
**Spring 2026**

**CREDIT**

3 Semester Credit Hours (Web-Based)

**MODE OF INSTRUCTION**

Online

**PREREQUISITE/CO-REQUISITE:**

Passed the Reading/Writing Sections of TSI or any other accepted test.

Co-requisite Biol 2101



**LAMAR INSTITUTE**  
**OF TECHNOLOGY**

**COURSE DESCRIPTION**

Anatomy and Physiology I is the first part of a two-course sequence. It is a study of the structure and function of the human body including cells, tissues, and organs of the following systems: integumentary, skeletal, muscular, nervous, and special senses. Emphasis is on interrelationships among systems and regulation of physiological functions involved in maintaining homeostasis.

**COURSE OBJECTIVES**

Upon successful completion of this course, students will be able to:

1. Use anatomical terminology to identify and describe locations of major organs of each system covered.
2. Explain interrelationships among molecular, cellular, tissue, and organ functions in each system.
3. Describe the interdependency and interactions of the systems.
4. Explain contributions of organs and systems to the maintenance of homeostasis.
5. Identify causes and effects of homeostatic imbalances.
6. Identify modern technology and tools used to study anatomy and physiology.

**CORE OBJECTIVES**

1. **Critical Thinking Skills:** To include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information
2. **Communication Skills:** To include effective development, interpretation, and expression of ideas through written, oral, and visual communication
3. **Empirical & Quantitative Skills:** To include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions
4. **Teamwork:** To include the ability to connect choices, actions, and consequences to ethical decision-making

Approved: **Initials/date**

## **INSTRUCTOR CONTACT INFORMATION**

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Instructor: Zachary T Grimes, PhD  
Email: [zgrimes@lit.edu](mailto:zgrimes@lit.edu)  
Office Phone: NA – online adjunct  
Office Location: NA – online adjunct  
Office Hours: NA – online adjunct – email for appointment  
See Starfish for Available Office Hours  
[Click Here for Starfish](#)

## **REQUIRED TEXTBOOK AND MATERIALS**

REQUIRED = Textbook - OpenStax Anatomy & Physiology Levels I and II

Anatomy and Physiology from OpenStax, Print ISBN 1938168135, Digital ISBN 1947172042,

[Click Here for OpenStax Anatomy & Physiology textbook](#)

Your textbook for this class is available for free online and a print copy, can be purchased online, or obtained through Eagle Learning Essentials. [Click Here for Eagle Learning Essentials](#)

Supplemental = Textbook - WikiBooks – Human Physiology

[https://en.wikibooks.org/wiki/Human\\_Physiology](https://en.wikibooks.org/wiki/Human_Physiology)

## **ATTENDANCE POLICY**

1. You must log into Blackboard and access this course a minimum of 3 times per week.
2. Late assignments will be accepted with a deduction as a late penalty. Students will receive a zero for assignments not completed.
3. If you wish to drop this course, you must drop it administratively. If you do not drop, you will receive an F for the course.

## **DROP POLICY**

If you wish to drop a course, you are responsible for initiating and completing the drop process by the specified drop date as listed on the [Academic Calendar](#) located on the college's [Student Success](#) web page. If you stop coming to class and fail to drop the course, you will earn an “F” in the course.

## COURSE CALENDAR

### BIOL 2301 Tentative Weekly Checklist Spring 2026

Week:	To Do:	Due Date:
<u>Week 1</u>  Jan 20 <sup>th</sup> – 23 <sup>rd</sup>  Introduction Directional Terms Study of Life  <u>Total Video Time:</u> 18 minutes	<ul style="list-style-type: none"> <li>☒ Discussion Board 1: Introduction</li> <li>☒ Discussion Board 2: Netiquette</li> <li>☒ Syllabus Quiz/Syllabus Acknowledgement</li> </ul>	☒ 01.23.26
	<ul style="list-style-type: none"> <li>☒ Video Quiz: Introduction to Anatomy &amp; Physiology (Chapter 1) [11 minutes]</li> <li>☒ Video Quiz: Directional Terms (Chapter 1) [3 minutes 15 seconds]</li> <li>☒ Video Quiz: Body Planes (Chapter 1) [1m 35s]</li> <li>☒ Video Quiz: Body Cavities (Chapter 1) [1m 26s]</li> <li>☒ Discussion Board 3: Regional &amp; Directional Terms</li> <li>☒ <b>Read OpenStax A&amp;P Chapter 1</b></li> <li>☒ Look over instructions for Individual Project (Health Science Career Poster) due 03.06.26</li> <li>☒ Join a group for Group Project (Muscle Video) due 04.08.26</li> </ul>	☒ 01.25.26
<u>Week 2</u>  Jan 26 <sup>th</sup> – 30 <sup>th</sup>  Elements, Cells, Tissues  <u>Total Video Time:</u> 5 minutes	<ul style="list-style-type: none"> <li>☒ Video Quiz: Elements of the Human Body (Chapter 2) [1 m 52 s]</li> <li>☒ Video Quiz: Levels of Organization in the Body (Chapter 3) [2m 45s]</li> <li>☒ <b>Read OpenStax Chapter 2</b></li> <li>☒ <b>Read OpenStax Chapter 3</b></li> <li>☒ Work on Individual Project (Health Science Career Poster) due 03.06.26</li> <li>☒ Work on Group Project (Muscle Video) due 04.08.26</li> </ul>	☒ 02.01.26
<u>Week 3</u>  Feb 2 <sup>nd</sup> – 6 <sup>th</sup>  Elements, Cells, Tissues  <u>Total Video Time:</u> 18 minutes	<ul style="list-style-type: none"> <li>☒ Video Quiz: Cell Structure (Chapter 3) [7m 22s]</li> <li>☒ Video Quiz: Tissues (Chapter 4) [10m 43s]</li> <li>☒ Quiz 1: Chapter 1 (Introduction), Chapter 2 (Elements), Chapter 3 (Cells), Chapter 4 (Tissues)</li> <li>☒ <b>Read OpenStax Chapter 4</b></li> <li>☒ Work on Individual Project (Health Science Career Poster) due 03.06.25</li> <li>☒ Work on Group Project (Muscle Video) due 04.08.26</li> </ul>	☒ 02.06.26  ☒ Quiz 1 opens 02.6.26 and closes 02.08.26
<u>Week 4</u>  Feb 9 <sup>th</sup> – 13 <sup>th</sup>  Integumentary System  <u>Total Video Time:</u> 10 minutes	<ul style="list-style-type: none"> <li>☒ Discussion Board 4: Integumentary</li> <li>☒ Video Quiz: Integumentary System (Chapter 5) [9m 40s]</li> <li>☒ <b>Read OpenStax Chapter 5</b></li> <li>☒ Work on Individual Project (Health Science Career Poster) due 03.06.26</li> <li>☒ Work on Group Project (Muscle Video) due 04.08.26</li> </ul>	☒ 02.15.26
<u>Week 5</u>  Feb 16 <sup>th</sup> – 20 <sup>th</sup>  Complete Integumentary	<ul style="list-style-type: none"> <li>☒ Quiz 2: Chapter 5 (Integumentary)  opens 02.18.26 and closes 02.20.26</li> <li>☒ Work on Individual Project (Health Science Career Poster) due 03.06.26</li> <li>☒ Work on Group Project (Muscle Video) due 04.08.26</li> <li>☒ <b>Read OpenStax Chapter 5</b></li> </ul>	☒ Quiz 2 due 02.20.26

<p><u>Week 6</u></p> <p>Feb 23<sup>rd</sup> – 27<sup>th</sup></p> <p><b>Skeletal System &amp; Joints</b></p> <p><u>Total Video Time:</u> 18 minutes</p>	<ul style="list-style-type: none"> <li>☒ Discussion Board 5: Skeletal System Anatomy &amp; Osteoporosis</li> <li>☒ Video Quiz: Skeletal (Chapter 6) [7m 59s]</li> <li>☒ Video Quiz: Axial vs. Appendicular Skeleton (Chapter 7) [3m 19s]</li> <li>☒ Video Quiz: What Bones Tell Us (Chapter 8) [6m 26s]</li> <li>☒ <b>Read OpenStax Chapter 6</b></li> <li>☒ <b>Read OpenStax Chapter 7</b></li> <li>☒ <a href="#">Work on Individual Project (Health Science Career Poster) due 03.06.26</a></li> <li>☒ <a href="#">Work on Group Project (Muscle Video) due 04.08.26</a></li> </ul>	<p>☒ 03.01.26</p>
<p><u>Week 7</u></p> <p>March 2<sup>nd</sup> – 6<sup>th</sup></p> <p><b>Skeletal System &amp; Joints</b></p> <p><u>Total Video Time:</u> 20 minutes</p>	<ul style="list-style-type: none"> <li>☒ Discussion Board 6: Joints</li> <li>☒ Video Quiz: Whose Bones Are These? (Chapter 8) [7m 7s]</li> <li>☒ Video Quiz: Introduction to Joints (Chapter 9) [2m 52s]</li> <li>☒ Video Quiz: Bones and Joints (Chapter 9) [9m 22s]</li> <li>☒ <b>Read OpenStax Chapter 8</b></li> <li>☒ <b>Read OpenStax Chapter 9</b></li> <li>☒ <b>Quiz 3: Chapters 6 – 9 (Skeletal System &amp; Joints)</b></li> <li>☒ <b>Due</b> → <a href="#">Individual Project (Health Science Career Poster) due 03.06.26 by 11:59 PM</a></li> <li>☒ <a href="#">Work on Group Project (Muscle Video) due 04.08.26</a></li> </ul>	<p>☒ 03.06.26</p> <p>☒ <b>Quiz 3</b> <i>opens 03.06.26 and closes 03.08.26</i></p>
<p><u>Week 8</u></p> <p>Mar 9<sup>th</sup> – 13<sup>th</sup></p> <p><b>Spring Break</b></p>	<ul style="list-style-type: none"> <li>☒ Sleep, rest, relax</li> <li>☒ Enjoy time with family and friends</li> <li>☒ Netflix, etc.</li> <li>☒ Exercise</li> <li>☒ Read a good book</li> <li>☒ Do something nice for someone</li> </ul>	
<p><u>Week 9</u></p> <p>Mar 16<sup>th</sup> – 20<sup>th</sup></p> <p><b>Midterm Exam</b></p>	<ul style="list-style-type: none"> <li>☒ <b>Midterm Exam</b> <b>Opens 03.18.26 and Closes 03.20.26 (Chapters 1 - 9)</b></li> <li>☒ <a href="#">Work on Group Project (Muscle Video) due 04.08.26</a></li> <li>☒ <b>March 20 – Professional Development Day – Campus Closed</b></li> </ul>	<p>☒ <b>Midterm</b> due 03.20.26</p>
<p><u>Week 10</u></p> <p>Mar 23<sup>rd</sup> – 27<sup>th</sup></p> <p><b>Muscular System</b></p> <p><u>Total Video Time:</u> 6 minutes</p>	<ul style="list-style-type: none"> <li>☒ Discussion Board 7: Muscular System</li> <li>☒ Video Quiz: Muscular System (Chapter 10) [5m 59s]</li> <li>☒ <b>Read OpenStax Chapter 10</b></li> <li>☒ <a href="#">Work on Group Project (Muscle Video) due 04.08.26</a></li> </ul>	<p>☒ 03.29.26</p>
<p><u>Week 11</u></p> <p>Mar 30<sup>th</sup>–April 3<sup>rd</sup></p> <p><b>Muscular System</b></p> <p><u>Total Video Time:</u> 16 minutes</p>	<ul style="list-style-type: none"> <li>☒ Video Quiz: How the Muscular System Works (Chapter 11) [4m 45s]</li> <li>☒ Video Quiz: Muscles (Chapter 11) [10m 41s]</li> <li>☒ <b>Read OpenStax Chapter 11</b></li> <li>☒ Discussion Board 8: Post 2 Comments on Individual Poster Projects</li> <li>☒ <b>Due SOON</b> → <a href="#">Work with group members on Group Project (Muscles Video) due 04.08.26</a></li> <li>☒ <b>Quiz 4: Chapters 10 – 11 (Muscular System)</b> opens 04.03.26 and closes 04.05.26</li> </ul>	<p>☒ 04.03.26</p> <p>☒ <b>Quiz 4</b> <i>opens 04.03.26 and closes 04.05.26</i></p>

<u>Week 12</u> April 6 <sup>th</sup> – 10 <sup>th</sup> Nervous System <u>Total Video Time:</u> 10 minutes	Discussion 9: Nervous System Video Quiz: Nervous System (Chapter 12) [9m 22s] <b>Read OpenStax Chapter 12</b> <b>Read OpenStax Chapter 13</b> <b>Due</b> → Work with group members on Group Project (Muscles Video) due 04.08.26 by 11:59 PM	04.11.26
<u>Week 13</u> April 13 <sup>th</sup> – 17 <sup>th</sup> Nervous System <u>Total Video Time:</u> 11 minutes	Discussion 10: Divisions of Nervous System Video Quiz: Anatomy of the Nervous System (Chapter 13) [10m 26s] <b>Read OpenStax Chapter 14</b> <b>Read OpenStax Chapter 15</b>	04.19.26
<u>Week 14</u> April 20 <sup>th</sup> – 24 <sup>th</sup> Nervous System <u>Total Video Time:</u> 11 minutes	Video Quiz: Nervous System- Action Potential (Chapter 13) [11m 43 s] <b>Read OpenStax Chapter 16</b>	04.26.26
<u>Week 15</u> April 27 <sup>th</sup> – May 1 <sup>st</sup> Nervous System <u>Total Video Time:</u> 11 minutes	Video Quiz: Nervous System-Senses (Chapter 14) [10m 32s] <b>Read OpenStax Chapter 16</b> <b>Quiz 5: Chapters 12 - 16 (Nervous System)</b> <i>opens 05.01.26 and closes 05.03.26</i>	05.01.26 <b>Quiz 5</b> closes 05.04.26
<u>Week 16</u> May 4 <sup>th</sup> – 8 <sup>th</sup> Review	<input type="checkbox"/> Review for Final Exam (Chapters 1-16) <input checked="" type="checkbox"/> Double check your grades this week. <input checked="" type="checkbox"/> Be sure you have submitted all assignments and there are no mistakes. <input checked="" type="checkbox"/> A zero will be entered for any assignments not completed and will lower your overall average. Contact me with questions, concerns, or to make up assignments The semester is almost over. Finish strong!	
<u>Week 17</u> May 11 <sup>th</sup> – 13 <sup>th</sup> Final Exam	<p style="text-align: center;"><b>FINAL EXAM</b></p> <p style="text-align: center;">Opens 05.10.26 and Closes 05.12.26 (Chapters 1 – 16)</p> <p style="text-align: center;">Congratulations!! You made it!! Celebrate ☺</p>	<b>Final</b> <b>Due on</b> 05.11.26 by 11:59 PM

## COURSE EVALUATION

Final grades will be calculated according to the following criteria:

1. Quizzes = 20%
2. Discussion & Participation = 10%
3. Individual & Group Project = 20%
4. Midterm & Final Exam = 30%
5. Assignments (Video Quizzes, etc) = 20%

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**Total = 100%**

Approved: ZTG\_120825

## GRADING SCALE

90-100 = A  
80-89 = B  
70-79 = C  
60-69 = D  
0 – 59 = F

## TECHNICAL REQUIREMENTS

For the latest technical requirements, including hardware, compatible browsers, operating systems, etc., review the Minimum Computer and Equipment Requirements on the [LIT Online Experience](#) page. A functional broadband internet connection, such as DSL, cable, or WiFi is necessary to maximize the use of online technology and resources.

**Quizzes and Exams** in this course are administered through Blackboard. Exams will be administered with Respondus **LockDown Browser + Respondus Monitor (webcam)**

Requirements to take exams include:

- A reliable computer, desktop or laptop (phones, chromebooks, tablets, and iPads are not allowed).
- Windows: 10, 8, 7
- Mac: OS X 10.10 or higher
- Adobe Flash Player (bundled with the LockDown Browser installation)
- Web camera (internal or external) & microphone
- A reliable internet service provider. A broadband internet connection.
- A room to take the exam where you are alone (other individuals in the room are not allowed)

Watch these overview videos to understand the tools your will be using to take the exam.

Respondus LockDown Browser: <https://www.youtube.com/watch?v=XuX8WoeAycs#action=share>

Respondus Monitor: <https://www.youtube.com/watch?v=hv2L8Q2NpO4 - action=share>

### Respondus **LockDown Browser + Respondus Monitor (webcam)**

Download Instructions:

- Select the quiz or exam in the course
- Under Quiz Requirements, you will see "To take this quiz you must use the Respondus LockDown Browser"
- Below this will appear: "You can use the button below if you have not already downloaded LockDown Browser". Click the button to go to the download page and then follow the instructions
- Use the link to download Respondus LockDown Browser to your computer; follow the installation instructions
- Return to the Quiz page in Brightspace (it may still be open in another tab) and select the quiz
- Select "Launch LockDown Browser"
- The quiz or exam will now start

Note: LockDown Browser only needs to be installed once on a computer or device. It will start automatically from that point forward when a quiz requires it.

### **Guidelines while taking online quizzes or exams:**

- Ensure you're in a location where you won't be interrupted.
- Turn off all other devices (e.g. tablets, phones, second computers) and place them outside of your reach.
- Before starting the test, know how much time is available for it, and also that you've allotted sufficient time to complete it.
- Clear your desk or workspace of all external materials not permitted - books, papers, other devices.
- Remain at your computer for the duration of the test.
- If the computer, Wi-Fi, or location is different than what was used previously with the "Webcam Check" and "System & Network Check" in LockDown Browser, run the checks again **before** the exam.
- To produce a good webcam video, do the following:
  - Avoid wearing baseball caps or hats with brims, or hoodies.
  - Ensure your computer or device is on a firm surface (a desk or table). Do NOT have the computer on your lap, a bed, or other surface where the device (or you) are likely to move.
  - If using a built-in webcam, avoid readjusting the tilt of the screen after the webcam setup is complete.
  - Take the exam in a well-lit room, but avoid backlighting (such as sitting with your back to a window)
- Remember that LockDown Browser will prevent you from accessing other websites or applications; you will be unable to exit the test until all questions are completed and submitted.

### **The following violations during testing will result in a grade of zero or reduction in points:**

- Using technology or electronic devices including, but not limited to, iPads, phones, smart glasses, earbuds, smartwatches.
- Leaving the testing environment or face missing from frame or obscured.
- Noises that might indicate external help.
- Any other questionable activities indicating cheating.

### **DISABILITIES STATEMENT**

The Americans with Disabilities Act of 1990 and Section 504 of the Rehabilitation Act of 1973 are federal anti-discrimination statutes that provide comprehensive civil rights for persons with disabilities. LIT provides reasonable accommodations as defined in the Rehabilitation Act of 1973, Section 504 and the Americans with Disabilities Act of 1990, to students with a diagnosed disability. The Special Populations Office is located in the Eagles' Nest Room 129 and helps foster a supportive and inclusive educational environment by maintaining partnerships with faculty and staff, as well as promoting awareness among all members of the Lamar Institute of Technology community. If you believe you have a disability requiring an accommodation, please

contact the Special Populations Coordinator at (409)-951-5708 or email [specialpopulations@lit.edu](mailto:specialpopulations@lit.edu). You may also visit the online resource at [Special Populations - Lamar Institute of Technology \(lit.edu\)](https://www.lit.edu/special-populations).

### STUDENT CODE OF CONDUCT STATEMENT

It is the responsibility of all registered Lamar Institute of Technology students to access, read, understand and abide by all published policies, regulations, and procedures listed in the *LIT Catalog and Student Handbook*. The *LIT Catalog and Student Handbook* may be accessed at [www.lit.edu](https://www.lit.edu). Please note that the online version of the *LIT Catalog and Student Handbook* supersedes all other versions of the same document.

### ARTIFICIAL INTELLIGENCE STATEMENT

Lamar Institute of Technology (LIT) recognizes the recent advances in Artificial Intelligence (AI), such as ChatGPT, have changed the landscape of many career disciplines and will impact many students in and out of the classroom. To prepare students for their selected careers, LIT desires to guide students in the ethical use of these technologies and incorporate AI into classroom instruction and assignments appropriately. Appropriate use of these technologies is at the discretion of the instructor. Students are reminded that all submitted work must be their own original work unless otherwise specified. Students should contact their instructor with any questions as to the acceptable use of AI/ChatGPT in their courses.

### STARFISH

LIT utilizes an early alert system called Starfish. Throughout the semester, you may receive emails from Starfish regarding your course grades, attendance, or academic performance. Faculty members record student attendance, raise flags and kudos to express concern or give praise, and you can make an appointment with faculty and staff all through the Starfish home page. You can also login to Blackboard or MyLIT and click on the Starfish link to view academic alerts and detailed information. It is the responsibility of the student to pay attention to these emails and information in Starfish and consider taking the recommended actions. Starfish is used to help you be a successful student at LIT.

### ADDITIONAL COURSE POLICIES

#### Course Requirements

- A Midterm and Final is required with two attempts given per assessment and uses Respondus Lockdown Browser. The final score will be an **average of attempts**.
- Five quizzes will be given using Respondus Lockdown Browser with two attempts given per assessment. The final score will be an **average of attempts**.
- Students will complete video quizzes and discussion boards for each unit.
- Students will complete an individual project and a group project. A deduction in points will be given for completing group project without partners.
- Late assignments, **except the final exam**, will be accepted with a deduction as a late penalty. Students will receive a zero for assignments not completed.

Approved: Initials/date